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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/626,946	07/27/2000	Brenda Lynn Dietrich	YOR9-2000-0474US1	9416

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EXAMINER
AKERS, GEOFFREY R

ART UNIT	PAPER NUMBER
3624	

DATE MAILED: 11/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

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	Application No.	Applicant(s)
Office Action Summary	09/626946	Dietrich
	Examiner	Art Unit
	Abolfazl, A	3624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ___3___ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☑ Responsive to communication(s) filed on ___8/13/03___

2a) ☐ This action is **FINAL**.   2b) ☑ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☑ Claim(s) ___1 - 20___ is/are pending in the application.

    4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☑ Claim(s) ___1 - 20___ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a) ☐ All b) ☐ Some* c) ☐ None of:

    1. ☐ Certified copies of the priority documents have been received.

    2. ☐ Certified copies of the priority documents have been received in Application No. _____

    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   *See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

   a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☑ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

4) ☐ Interview Summary (PTO-413) Paper No(s). _____

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____

U. S. Patent and Trademark Office
PTO-326 (Rev. 04-01)   **Office Action Summary**   Part of Paper No. 11

DETAILED ACTION

Response to Appeal Brief

1.   This action is issued in response to applicant's Appeal Brief(Paper #10) filed 8/13/03.

2.   Prosecution is reopened.

3.   Claims 1-20 as recently amended, are pending.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth
> in section 102 of this title, if the differences between the subject matter sought to be patented and the prior
> art are such that the subject matter as a whole would have been obvious at the time the invention was made
> to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be
> negatived by the manner in which the invention was made.

5.   Claims 1-20 are rejected under 35 USC 103(a) as unpatentable over Martin(US Pat. No:

6,606,607) in view of Joslin(US Pat. No:6,272,483) in view of Eldering(US Pat. No: 6,324,519)

and further in view of Telluri(US Pat. No: 6,606,607).

6.   As per claims 1-20 Martin teaches a method of determining the winning bid in a

combinatorial auction(Abstract)(Fig 6).Martin further teaches multiple bids and

counteroffers(Fig 6/116/118/120/122/124/126/128/130/134) as well as exclusion(Fig

6/132).Martin further teaches a virtual minimum acceptable price which is above the minimum

acceptable price and serves as a bound on the bid range(Fig 9A). Martin also teaches a range of

constraintsa above the minimum acceptable prioce for the virtual minimum acceptable price(Fig

9A/178/180/182). Martin also teaches comparing the offer against the virtual minimum

acceptable price(Fig 9A/192) as well as successive interations over the offer-bid space until a

transaction is achieved(Fig 9B/194/196/198/200/202/204/206) or not achieved(Fig

9B/218/208/212/220)(col 6 line 20-col 8 line 6). Martin also teaches that a prospective buyer

may submit multiple bids(col 1 lines 49-52) as well as an interactive e-commerce auction is

connected to multiple bidders over a network(col 2 lines 4-34)(col 3 lines 4-24). Joslin teaches

the use of linear programming relation solution program on the decision variables to select a

winning bid or combination of bids from multiple bidders(Abstract).Joslin further teaches the use

of the column generation technique(col 1 lines 10-28).Joslin also teaches a global(Fig 1/120)

optimization engine and a local optimization engine(Fig 1/110) as well as decomposing the

solutions obtained by optimization techniques into subsolutions and applying these to the global

optimizer(Fig 2/207) and recombining the subsolutions into a new complete solution and

returning the best solution from the global optimizer(Fig 2/208/207/210).Additionally, Joslin

teaches using feedback from the global optimizer to construct a new sequence(Fig 3/311) and

through decomposition and recombination and identifying any deficiencies in the optimization

across all solutions and ultimately returning the best solution from the global optimizer(Fig

3/309). In addition to that taught by Joslin,Eldering teaches a combinatorial auction method for

maximizing revenue(Abstract) with a system operating on the Internet(Fig 1A/150) as well as

pricing as a function of correlation(Fig 6)(col 9 lines 7-31) which provides a method which

permits maximization of income(col 9 lines 7-11).In addition to that taught by Eldering, Talluri

teaches maximizing revenue using multidimensional value variable matrices(Abstract)(col 5 line

41-col 7 line 49).Talluri further teaches a threshold value table server maintaining these threshold

value tables(Fig 1/14) as well as a decision engine for threshold values(Fig 3/102) and comparing

the price against the sum of the threshold values for an evaluation(Fig 3/108).Talluri also teaches

that the multidimensional martrices(tables)separate optimization modules and acceptance

criterion modules this isolation furnishes additional robustness in the operation of the revenue

management system(col 5 lines 11-16). It would have been obvious to one skilled in the art at the

time of the invention to combine Martin in view of Joslin to teach part of the disclosure. The

motivation to combine is to teach a real time auction that incorporates finding the optimal

combination of columns for heuristically generated solutions whereby given a set of columns the

linear program solver finds optimal primal and dual solutions to the linear programming

relaxation condition as enunciated by Joslin(col 5 lines 10-28).It also would have been obvious

to one skilled in the art at the time of the invention to combine Martin in view of Joslin and

further in view of Eldering to further teach the disclosure. The motivation to combine is to teach

an auction system which can match products with buyers and permit the entity presenting the

products to the bidders/buyers to maximize their income as enunciated by Eldering(ciol 1 lines

31-35). Finally, it further would have been obvious to one skilled in the art at the time of the

invention to combine Martin in view of Joslin in view of Eldering and further in view of Talluri

to teach the disclosure. The motivation to combine is to teach an auction that maximizes revenue

for multiple entities participating as enunciated by Talluri(col 3 line 58-col 4 line 2).

Response to Arguments

7.   Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8.   **THIS ACTION IS MADE NON-FINAL.**

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9.   Questions concerning this communication should be addressed to the primary examiner of record, Dr. Geoffrey Akers, P.E., who can be reached between 6:30 AM and 5:00 PM Monday through Friday at 703-306-5844. If attempts to contact the primary examiner are unsuccessful, the primary examiner's superior, Mr. Vincent Millin, SPE, may be called at (703)-308-1065.

The fax number for Formal or Official faxes and Draft or Informal faxes to Technology Center 3600 or this Art Unit is (703)-308-3687. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703)-308-1113.

GRA

November 15, 2003

DR. GEOFFREY R. AKERS, P.E.
PRIMARY EXAMINER